

# The Indirect Approach

*David Ellerman*

Aid and conditionalities are the “carrots and sticks” of the conventional direct approach to fostering economic development. Considering the outcomes of the conventional approach, it might be worthwhile to explore alternative indirect approaches that focus on enabling clients to act more autonomously, rather than try for fuller control of clients’ actions with improved carrots and sticks.



## Summary findings

Aid and conditionalities are the “carrots and sticks” of the conventional direct approach to fostering economic development. The economic theory of agency is the most sophisticated treatment of the direct carrots-and-sticks approach to influencing human behavior.

Considering the outcomes of the conventional approach, it might be worthwhile to explore alternative indirect approaches that focus on enabling clients to act more autonomously, rather than try for fuller control of clients’ actions (or “agents’ behaviors”) with improved carrots and sticks.

Are there inherent limitations in the direct approach that will not be addressed with better crafted “agency contracts” or closer monitoring of the agents?

Ellerman traces the intellectual history of indirect approaches from Socrates to modern thinkers such as Wittgenstein, Gandhi, and McGregor.

One theme of his survey is that constructivist and active-learning pedagogies constitute an indirect approach in which the teacher does not directly transmit

knowledge to the learner through training and instruction. These pedagogies—translated into social and economic development as learning writ large—form the basis for an alternative indirect approach to fostering development.

Actions have motives just as beliefs have grounds, concludes Ellerman. In the wide spectrum of human endeavor, there is only a fairly small “bandwidth” in which motives can be supplied by the carrots and sticks of the direct approach (including agency theory and market-driven activities as special cases of the direct approach to affecting behavior). Outside that spectrum, trying to use direct methods in a controlling manner contradicts the motives for actions (and the grounds for beliefs)—like trying to “buy love.”

For higher activities, motives must come from within. Helpers can at best use an indirect approach to bring doers to the threshold; the doers have to do the rest, which makes the results their own.

---

This paper—a product of the Office of the Senior Vice President and Chief Economist, Development Economics—is part of a larger effort in the Bank to rethink the role of conditionalities in development assistance. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Bezawork Mekuria, room MC4-328, telephone 202-458-2756, fax 202-522-1158, email address [bmekuria@worldbank.org](mailto:bmekuria@worldbank.org). Policy Research Working Papers are also posted on the Web at [www.worldbank.org/research/workingpapers](http://www.worldbank.org/research/workingpapers). The author may be contacted at [dellerman@worldbank.org](mailto:dellerman@worldbank.org). August 2000. (36 pages)

*The Policy Research Working Paper Series disseminates the findings of work in progress to encourage the exchange of ideas about development issues. An objective of the series is to get the findings out quickly, even if the presentations are less than fully polished. The papers carry the names of the authors and should be cited accordingly. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the view of the World Bank, its Executive Directors, or the countries they represent.*

# **The Indirect Approach**

David Ellerman  
World Bank\*

## **Table of Contents**

### **Introduction**

*The Indirect Approach in Strategy*  
*The Indirect Approach in Biological Learning Mechanisms*  
*The Indirect Approach in Social Policies*

### **Towards a Critique of Agency Theory**

*The Helper-Doer Relationship*  
*Intrinsic and Extrinsic Motivation*  
*By-Products Rather than Products of Choice*

### **McGregor's Theory Y: A Prototype Indirect Approach**

*Step 1: Starting from the doer's problem*  
*Step 2: Seeing the problem through the doer's eyes*  
*Step 3: Helping the doer pursue own-ends to best solve the organizational problem*  
*Step 4: Helping doer to implement, test, and refine the doer's solution*  
*Step 5: Helping doer gain autonomy and take responsibility for solution*

### **Indirect Approaches: Intellectual Background in Antiquity**

*Taoist Antecedents*  
*The Socratic Method*  
*The Path of Stoicism*  
*Learning in Neo-Platonism*  
*The Learning Paradox and Augustine*

### **Modern Variations on the Indirect Approach**

*Rousseau's Copernican Revolution in Pedagogy*  
*John Dewey and the Active Learning Pedagogy*  
*Carl Rogers' Non-Directive Therapy*  
*Søren Kierkegaard and Ludwig Wittgenstein on Indirect Communication*  
*Ryle, Polanyi, and Oakshott on Uncodified Knowledge*  
*Gandhi and Satyagraha*

### **Conclusion**

### **Bibliography**



## Introduction

Three very different examples of an "indirect approach" will serve to introduce the variety and importance of the idea:

- the indirect approach in matters of strategy in military as well as broader human affairs,
- the indirect approach to learning in the higher animals (in comparison with, say, insects), and
- the indirect approach as a class of social policies that operate by enabling private and collective actors instead of trying to directly control their actions.

### The Indirect Approach in Strategy

Liddell Hart's (1895-1970) classic book *Strategy* [1967] evolved from a 1941 book entitled *The Strategy of Indirect Approach*. Hart saw that the indirect approach that he recommended in military strategy was in fact part of a much broader indirect approach that could be applied elsewhere in human affairs.

With deepening reflection,... I began to realize that the indirect approach had a much wider application—that it was a law of life in all spheres: a truth of philosophy. Its fulfilment was seen to be the key to practical achievement in dealing with any problem where the human factor predominates, and a conflict of wills tends to spring from an underlying concern for interests. In all such cases, the direct assault of new ideas provokes a stubborn resistance, thus intensifying the difficulty of producing a change of outlook. ...

This idea of the indirect approach is closely related to all problems of the influence of mind upon mind—the most influential factor in human history. [Hart 1941, x]

### The Indirect Approach in Biological Learning Mechanisms

A very different area where the "indirect approach" is prominent is in the comparative biology of learning mechanisms. There are two very different ways in which teaching and learning can take place. Both ways occur biologically if we view what is transmitted through the genetic mechanism from an organism to its offspring as the biological version of what is transmitted from the teacher to the learner. For many organisms, insects being a good example, the specific behaviors (that are fitted to certain stable environments) are transmitted by the genes from parents to offspring. The individual organism does not engage in learning from the environment as the appropriate behaviors are already determined by the structure of the organism that was transmitted through the genes. Thus any learning takes place only at the species level, not at the individual level. Norbert Wiener calls this "phylogenetic learning" as opposed to "ontogenetic learning" [1961, 169]. For instance, insects have only phylogenetic learning whereas the mammals ("higher animals") have both phylogenetic learning and ontogenetic learning.

[The] very physical development of the insect conditions it to be an essentially stupid and unlearning individual, cast in a mold which cannot be modified to any great extent.... On the other hand, ... the human individual [is] capable of vast

learning and study, ...[and] is physically equipped, as the ant is not, for this capacity. Variety and possibility are inherent in the human sensorium—and are indeed the key to man's most noble flights—because variety and possibility belong to the very structure of the human organism. [Wiener 1954, 51-2]

In animals capable of ontogenetic learning, the genes do not transmit the specific behaviors that might be fitted to certain environment; instead the genes transmit the learning mechanisms to the offspring. The animal then interacts with, adapts to, and learns from the environment. In this manner, the animal can learn much more complex activities in a wide variety of environments than could possibly be transmitted directly by the genes. Indeed, the adjectives "direct" and "indirect" can be used to describe these two approaches to learning.

The gene-pattern, as a store or channel for variety, has limited capacity. Survival goes especially to those species that use the capacity efficiently. It can be used directly or indirectly.

The direct use occurs when the gene-pattern is used directly to specify the regulator. The regulator is made (in the embryo) and the organism passes its life responding to each disturbance as the gene-pattern has determined. ...

The indirect use occurs when the gene-pattern builds a regulator ( $R_1$ ) whose action is to build the main regulator ( $R_2$ ), especially if this process is raised through several orders or levels. By achieving the ultimate regulation through stages, the possibility of large-scale supplementation occurs, and thus the possibility of an ultimate regulation far greater than could be achieved by the gene-pattern directly. [Ashby 1963, 270-1]

In the indirect case, the first regulator transmitted by the genes is the learning mechanism, and the second main regulator is the whole set of activities learned by the animal through interaction with the environment.

[The learning mechanism's] peculiarity is that the gene-pattern delegates part of its control over the organism to the environment. Thus, it does not specify in detail how a kitten shall catch a mouse, but provides a learning mechanism and a tendency to play, so that it is *the mouse* which teaches the kitten the finer points of how to catch mice.

This is regulation, or adaptation, by the indirect method. The gene-pattern does not, as it were, dictate, but puts the kitten into the way of being able to form its own adaptation, guided in detail by the environment. [Ashby 1960, 234]

The direct method (where genes transmit behaviors) and the indirect method (where the genes transmit a learning capacity) are essentially the genetic versions of two basic pedagogies. In the direct method, the teacher transmits knowledge to the passive student who absorbs and uses the knowledge as needed. In the indirect method, the teacher fosters and awakens an intrinsic desire for learning on the part of the learner who then takes the active role in (re)discovering and appropriating knowledge. In the indirect method, the teacher does not transmit knowledge, but "puts the [learner] into the way of being able to form [the learner's] own adaptation, guided in detail by the environment." Ortega uses a metaphor similar to Ashby's.

He who wishes to teach us a truth should not tell it to us, but simply suggest it with a brief gesture, a gesture which starts an ideal trajectory in the air along which we glide until we find ourselves at the feet of the new truth. ... He who wants to teach a truth should place us in the position to discover it ourselves. [Ortega 1961, 67]

These two methods are also described in the old Chinese story that giving a man a fish only feeds him for a day while teaching him how to fish feeds him for a lifetime. Ashby develops a similar story. Suppose that a father only had ten minutes to teach his child the meanings of English words. Using the direct method, the father would teach the child the meaning of a certain small number of words.

The indirect method is for the father to spend the ten minutes showing the child how to use a dictionary. At the end of the ten minutes the child is, in one sense, not better off; for not a single word has been added to his vocabulary. Nevertheless the second method has a fundamental advantage; for in the future the number of words that the child can understand is no longer bounded by the limit imposed by the ten minutes. The reason is that if the information about meanings has to come through the father directly, it is limited to ten-minutes' worth; in the indirect method the information comes partly through the father and partly through another channel (the dictionary) that the father's ten-minute act has made available.

In the same way the gene-pattern, when it determines the growth of a learning animal, expends part of its resources in forming a brain that is adapted not only by details in the gene-pattern but also by details in the environment. The environment acts like the dictionary. While the hunting wasp, as it attacks its prey, is guided in detail by its genetic inheritance, the kitten is taught how to catch mice by the mice themselves. Thus in the learning organism the information that comes to it by the gene-pattern is much *supplemented* by information supplied by the environment; so the total adaptation possible, after learning, can exceed the quantity transmitted directly through the gene-pattern. [Ashby 1960, 236-7]

### **The Indirect Approach in Social Policies**

For examples of an indirect approach in social policies, we might consider a survey of global trends in economic and social development commissioned by the UNCHS (Habitat) and carried out by the CERFE group in Rome. The report painstakingly analyzed fifty-eight urban policies.

Generally speaking, the overwhelming majority of urban policies enacted or encouraged by governments, local entities and international organizations appear to be based on what we might term an **indirect approach**, which is characterized by the following:

- the tendency of public subjects to avoid direct intervention to resolve problems or provide services, thus leaving greater room for action by other private and collective subjects;

- the tendency of public actors to be structured in an effectively decentralized manner;
- the growing tendency to resort to a variety of sources of financing, especially local sources. [CERFE 1995, chapter 1.8]

Thus governments have been turning away from the more customary direct approach which the report characterized by:

- exclusive recourse to public entities for the provision of services and infrastructure;
- centralized decision-making authority;
- near exclusive recourse to public funding for the supply of services and the construction and maintenance of infrastructure. [CERFE 1995, chapter 1.8]

My purpose here is to try to pull together from antiquity to modern times a wide variety of strategies and theories that promote an indirect approach to learning, management, developing critical reason, spiritual progress, and to broader social and institutional change. What are the basic limitations on direct approaches such as the economic theory of agency, and what are the underlying reasons for the efficacy of an indirect approach?

## **Towards a Critique of Agency Theory**

This emphasis on indirect approaches grows in part out of misgivings with the economic theory of agency.<sup>1</sup> Agency theory focuses on the common situation wherein one person or group, called the "principal," desires to obtain certain behavior from another person or group called the "agent." The principal-agent language is borrowed from the legal relationship of agency and is used in economics in a much broader context.<sup>2</sup> McGregor writing in 1948 before the principal-agent language was established in the economics and management literature refers to the principal and agent respectively as "A" and "B": "A always refers to the individual (or group) who is attempting to induce a behavior change, and B always refers to the individual (or group) whose behavior is affected." [1948; reprinted in 1966, 155]

Agency theory is based on *homo economicus*, or in McGregor's terms, on the Theory X view of people [1960, 1966, 1967]. Positive and negative economic incentives ("carrots and sticks") must be supplied by the principal to induce the appropriate behavior by the agents. Left to their own devices, agents cannot be trusted to act in the manner desired by the principal so an incentive structure must be applied to redirect the agents in the desired manner. Agency theory is a sophisticated direct approach. McGregor's alternative Theory Y is an indirect approach. Many of the modern management strategies that have grown out of McGregor's classic formulation of Theory Y will thus have a significant indirect component. Our purpose is to dig

---

<sup>1</sup> See Ross 1973 and Stiglitz 1974 for early work. For surveys and applications, see Pratt and Zeckhauser 1991, Eatwell et al. 1989, or the text Campbell 1995. For earlier critical analysis of agency theory, see Perrow 1972, Hirsh et al. 1987, Pfeffer 1994, and the references contained in Eisenhardt 1989.

<sup>2</sup> In the legal relationship, the agent takes on a legal role to act in the interests of the principal, but economists now use the terminology in a broader context where the agent is not necessarily under any legal obligation to act in the interests of the principal.



into the intellectual background to indirect approaches—which at the same time can be seen as showing limitations on the strictly economic approach to "agency" relationships.

The direct approach of Theory X and the indirect approach of Theory Y cannot simply be applied at the same time (although managers often seem to try). The approaches are more substitutes than complements but it is not simply a matter of choosing one or the other. It is a question of foreground and background. The case in favor of a Theory Y approach is not a case against any carrots or sticks *per se*, but a case that the carrots and sticks should be kept in the background as motivational backstops. It is a question of who is in the driver's seat, not who is in the car.

Piece rates and pay-for-performance schemes are examples of carrots in the foreground trying to get people's attention and guide their actions. An equitable salary more geared to experience and seniority would be an example of keeping the carrot of pay in the background so that other more intrinsic motives might emerge in the foreground to guide action. The tight coupling of pay with performance, as implied whenever possible by agency theory, is beside the point when the pay is in the background. For instance, Deming's "New Economics" recommends to "Abolish incentive pay and pay based on performance" [1994, 28], e.g., to pay salespeople by salary rather than by commission. Deming recommends replacing a system based on monitoring and quality bonuses with a system using (for the most part) trust based on self-esteem and pride in the quality of one's work. In short, this approach to quality relies not on cleverly constructed pay-for-performance schedules but on switching over to a quality system driven largely by intrinsic motivators [see below] such as self-esteem and pride in one's work—in short, quality as a calling.

### **The Helper-Doer Relationship**

The focus will be on the relationship where some party A tries to induce a change in the behavior or beliefs of another party B. Sometimes the first party might be called the "principal" and the second the "agent" in keeping with the idea of exploring Theory Y or indirect approaches to the agency relationship. But the agency terminology is freighted with connotations from economics and the law that are sometimes inappropriate so I will also use the terminology of A being the "helper" and B is the "doer" or "doers." Then the Theory Y and indirect approaches fall in line as ways for "helpers" to help others to help themselves to "do" something, while the Theory X and direct approaches are ways of influencing others to do something, but not ways of helping others to become more autonomous. Theory X does not take the autonomy of the agents or doers as a constraint, not to mention as a goal.

How can helpers provide assistance that is compatible with the autonomy of the doers? This is the quintessential problem of autonomy-compatible assistance; how to "help others to help themselves." The task is not to "help others"; it is the quite different task of "helping others help themselves." The notion of an autonomy-compatible assistance has a whiff of paradox since it is an external intervention that somehow does not override or undercut the other person's internal locus of causality. For instance, if the helper has a significant impact, then to what extent are the

others really "helping themselves," or if they are really helping themselves, then what is the role of the would-be "helpers"?<sup>3</sup>

There is a similar "learning paradox" in pedagogy (that we will explore); if the teacher "gives" the knowledge to the student, then the student probably has little understanding or "ownership" of the knowledge, but if the student actively rediscovers and appropriates the knowledge as his or her own, then the knowledge does not "come from" the teacher. The various answers to the problem of autonomy-compatible assistance are all approaches that could be termed "indirect"—and thus our focus.

At various points, I must ask the basic question: "Why an indirect approach; why not a direct approach?" What exactly is the problem with a more direct approach? There are many answers or at least answers in many terminologies. In the language of autonomy, the problems with the direct approaches are immediate; they cut across the autonomy of the agents or doers. In a direct approach (carrots and sticks) the agent is controlled and acted upon; the relationship does not enable the agent to become more self-acting or autonomous. Only an indirect approach is compatible with maintaining, if not increasing, the doer's autonomy.

### **Intrinsic and Extrinsic Motivation**

The concepts of extrinsic and intrinsic motivation can be useful in making these distinctions. An intrinsically motivated activity is an activity carried out by individuals for its own sake. The activity is an end in itself, not an instrumental means to some other end (such as satisfying biological needs or "tissue deficits"). The factors that determine the meaning of "for its own sake" are usually based on the self-identity of the person or persons carrying out the activity. An intrinsically motivated activity might be accompanied by extrinsic motivators if the latter are not controlling, i.e., if they do not take over the locus of control.<sup>4</sup> For instance, professors typically pursue their professional work for its own sake even though there is a salary and other emoluments in the background. Indeed much of the story is concerned with the question of the locus of control for an activity. Autonomous activity has an internal locus of control. A bribe or threat to get one to do what one would not ordinarily do establishes an external locus of control.

The economic theory of agency works with extrinsic variables such as monetary rewards or penalties to the agent that the principal can affect and change since the goal of the theory is to design incentive structures to elicit the desired results from the agent. By following the incentives provided by the "incentive-compatible" reward scheme, the agent will be led to achieve the results desired by the principal. From the agent's viewpoint, such an incentive structure represents extrinsic or external motivation.

---

<sup>3</sup> "It is hard ... to learn to accommodate one's ends to those of others; to adjust, to give way here, and fit in there with respect to our aims. But difficult as this is, it is easy compared with the difficulty of acting *in such a way* for ends which are helpful to others as will call out and make effective their activities." [Dewey and Tufts, 1908, 303]

<sup>4</sup> See Deci and Ryan 1985 for the notion of locus of causality. They differentiate it from the notion of locus of control [see Lefcourt 1976] as they interpret the latter as dealing with the outcomes rather than sources of action. Nevertheless, one may find the notion of "locus of control" often used to indicate the source of actions. We use the notions of having an internal locus of causality, self-determination, and autonomy as being synonymous for our purposes.

Money is the most obvious [extrinsic motivator] but promotion, praise, recognition, criticism, social acceptance and rejection, and 'fringe benefits' are other examples.

'Intrinsic' rewards, on the other hand, are inherent in the activity itself; the reward is the achievement. They cannot be *directly* controlled externally, although characteristics of the environment can enhance or limit the individual's opportunities to obtain them. Thus, achievement of knowledge or skill, of autonomy, of self-respect, of solutions to problems are examples. [McGregor 1966, 203-4]

There is now a considerable body of literature in psychology, sociology, and organizational behavior on intrinsic and extrinsic motivation as well as the closely related notions of autonomy, self-determination, and internal locus of control.<sup>5</sup> Although considerations of intrinsic motivation have figured prominently in the Romantic critique<sup>6</sup> of classical economics, the topic has until recently only received sporadic treatment in economics literature.<sup>7</sup> Bruno Frey's recent *Not Just for the Money* [1997] is the first book-length treatment of the topic of intrinsic motivation in the economics literature.

Again, the question can be asked: "Why an indirect approach; why not a direct approach?" Motive is part of action. If an action has an intrinsic motive, then it cannot be induced by extrinsic motivation. This is the old "can't buy love" argument in the terminology of intrinsic-extrinsic motivation. One can buy "loving behavior" but not love. The extrinsic motivation is inconsistent with the condition of being in love. Any action which involved an intrinsic motive could not be induced by extrinsic motivations, only a similar behavior.<sup>8</sup> "Bought love" is a motivationally inconsistent state: if it is love then it is not "bought" (although money may be involved incidentally in the background) and if it is bought, then it is only loving behavior.

This "not for sale" argument applies to all non-pecuniary motives, not just to intrinsic motivations. McGregor mentions praise and recognition as extrinsic motivators. Yet "bought praise" or "bought recognition" would be counterfeit since money payments are not genuine grounds for giving someone else praise or recognition. In contrast, there is no contradiction in paying someone to "prostitute" themselves in certain ways or to undertake a mercenary endeavor as that motivation is quite consistent with the proposed action.

---

<sup>5</sup> See Deci and Ryan 1985, Elster 1983, Lane 1991, Candy 1991, Kohn 1993, and Deming 1994.

<sup>6</sup> See, for example, Ruskin 1855 (1862). Lutz 1999 gives an integrated treatment of Sismondi, Carlyle, and Ruskin.

<sup>7</sup> See Titmuss 1970, Arrow 1972, Scitovsky 1976, Hirsch 1976, Sen 1982, Schelling 1984, Akerlof 1984, Hirschman 1992, Kreps 1997, and Prendergast 1999.

<sup>8</sup> A classic example where economics has ignored crucial questions of motives for behaviors is the economic treatment of "cooperation" and "trust" based on repeated prisoner's dilemma games (Axelrod [1984] is the *locus classicus*). When a prisoner's dilemma game is repeated, the credible threat of being punished by the other party's defecting tomorrow may elicit cooperative behavior today. But this sort of cooperative behavior is quite different from cooperation and trust motivated by some fellow-feeling for the other parties or some identification with the broader group which includes the other parties. Institutional design based on threat-induced "cooperation" would be rather different from design based on fellow-feeling or identification where the penalties attached to non-cooperation were not eliminated but played a secondary role as motivational backstops.

Thus one must always match tools to tasks. The direct approach utilizes certain tools such as the "carrots and sticks" of agency theory, and yet those tools may be inconsistent with the motives of the desired actions. A carrot cannot motivate a non-carrot-driven action. Such actions require an indirect approach.

### **By-Products Rather than Products of Choice**

Jon Elster has considered a large class of mental and social "by-product" states that cannot be brought about by deliberate choice [1983, Chapter II: "States that are Essentially By-Products"]. One cannot "produce" a state that is *essentially* a by-product, just as one cannot machine-produce a handmade artifact. One can only machine-produce counterfeit 'handmade' artifacts.

Imposed "autonomy" and bought "love" are among the examples of motive-inconsistent states. The principal cannot pay or threaten the agent to have such states as the motive contradicts the grounds for such states. The problems arise for cognitive states as well as for volitional states. Belief in some statement P, for example, would be grounded in some reason that could qualify as grounds for belief. Getting paid to believe P or believing P for instrumental reasons such as to attract another person or to be a member of a belief-based organization ("church"<sup>9</sup>) are not among those grounds,<sup>10</sup> although they may well be reasons for some "believing behavior." A "bought belief" is the cognitive version of the inconsistency involved in a "bought non-pecuniary motive" such as "bought love."

Here again, the answer is clear to the question: "Why an indirect approach; why not a direct approach?" A direct approach may be self-defeating like shining a flashlight to get a better look at "darkness"; the approach dispels the goal.<sup>11</sup> A by-product is at best the product of "indirect means" [Elster 1983, 56]. Mental states and conditions have their antecedents or grounds. A direct approach using an instrument that did not fulfill those antecedents or grounds would only produce a counterfeit state or condition (like a "bought belief"). Only an indirect approach that tried to foster or to be a midwife to the right conditions or grounds would have a chance of success.

### **McGregor's Theory Y: A Prototype Indirect Approach**

It is quite instructive to look at the genesis of McGregor's indirect Theory Y. He did not start with the traditional manager-subordinate relationship but with the relationship between a staff expert (e.g., in human relations, accounting, finance, engineering, and so forth) who is to help a line manager with a particular problem. It is perhaps because the line manager is not subordinate

---

<sup>9</sup> Thus Milton [1957 (1659)] inveighs against "hirelings" in the Church.

<sup>10</sup> "Here is the radical fallacy of those who urge that people must use promises and threats in order to encourage opinions, thoughts, and feelings which they think good, and to prevent others which they think bad. Promises and threats can influence acts. Opinions and thoughts on morals, politics, and the rest, after they have once grown in a man's mind, can no more be influenced by promises and threats than can my knowledge that snow is white or that ice is cold." [Morley 1928, 203]

<sup>11</sup> Kierkegaard used stories of putting a cap on a certain type of elf or putting special armor on the god Mars to see how they looked, but in each case the act made them invisible. Elster points out similar notions in Gregory Bateson's double bind theory [1972] and in the work of Watzlawick [1976] and Farber [1976]. See also Parfit [1984] for a discussion of self-defeating theories.

to the staff expert that McGregor has to explore indirect approaches: "The function of the staff expert in human relations is necessarily indirect."<sup>12</sup> This is the topic in McGregor's 1946 article "The Staff Function in Human Relations" which even precedes the "Theory X" and "Theory Y" terminology. At the end of the article, he muses that this approach might be applied by "the line manager to his own subordinates" [1946; reprinted in 1966, 170]. McGregor did just that in his classic presentation of Theory Y in *The Human Side of Enterprise* [1960].

McGregor describes Theory Y as being based on the principle of integration and self-control<sup>13</sup> where "integration" refers to the situation where an individual "can achieve his own goals *best* by directing his efforts toward the objectives of the enterprise." [1960, 61] Management's task is not to provide incentives; the "task is to provide an appropriate environment—one that will permit and encourage employees to seek intrinsic rewards *at work*." [1967, 14] The contrasting Theory X is based on the principle or philosophy of direction and control using the type of incentives that management can provide, i.e., extrinsic incentives.

I will outline Theory Y in a broader principal-agent setting where the "principal" or "helper" is trying to help the "agent" or "doer" to accomplish certain tasks. The general purpose is for the helper to help the doer or doers to help themselves. In an organizational setting, the principal (helper) would have a managerial role, the agent (doer) would be a subordinate (or another manager as in McGregor's staff-line example), and the tasks would be in furtherance of organizational goals.

### **Step 1: Starting from the doer's problem**

The helper starts from the doer's engagement with an organizational problem, a problem that the helper is to help the doer solve. The helper is not to start with what the helper as expert thinks is "the problem."

### **Step 2: Seeing the problem through the doer's eyes**

The helper explores with the doer the problem as perceived by the doer. How does the doer perceive and conceptualize the difficulty? If the helper sees the situation differently then this should be explained clearly without trying to manipulate the doer's perceptions or impose the helper's view of the problem.

### **Step 3: Helping the doer pursue own-ends to best solve the organizational problem**

This is the core of the indirectness of the approach. Starting with the doer's problem within the organization and seeing the problem through the doer's eyes, the helper can then offer knowledge and experience to help the doer find the best way to further the doer's own intrinsic ends while addressing the organizational problem. The helper is not to "teach" the doer what the helper

---

<sup>12</sup> McGregor 1946, reprinted in 1966, 152.

<sup>13</sup> Peter Drucker [1954] developed essentially the same "Theory Y" ideas in his "Management by Objectives (MBO)" (also called "management by objectives and self-control") approach as opposed to "management by control" (as noted in McGregor 1966, 15-16 and in Drucker 1973). But the MBO theory was so popularized (indeed, vulgarized) by Drucker and others apparently in order to reach a mass market that it is commonly interpreted to mean "management by results" in a manner quite along the lines of Theory X and agency theory. Hence we will rely more on McGregor's treatment of these ideas.

considers the best solution.<sup>14</sup> This is particularly difficult for engineers and economists who "know" the "one best (or 'optimal') way" to solve the problem. The helper is to create a learning situation so that the doer can arrive at what the doer considers to be the best solution to the problem in view of his own ends and capabilities.<sup>15</sup>

*A's [Helper's] objective is to utilize his skill to create a situation in which B [doer] can learn, and to make his knowledge available so that B may utilize it to augment his own need satisfaction in ways consistent with the achievement of organizational objectives. [McGregor 1966, 163]*

*Fundamentally the staff man... must create a situation in which members of management can learn, rather than one in which they are taught. [161]*

As the arrived-at solution is the fruits of the doer's own labor, the doer has a natural ownership of it which leads to much more effective implementation (e.g., more effective than the typical partial, half-hearted, and sullen implementation of the expert's imposed "solution").

If the helper's favored approach or solution is sound, then a learning situation should be feasible wherein the doer can arrive at it or something close to it. As may be more likely the case, the helper's favored solution may be incomplete or require adaptation to local circumstances so "perhaps the greatest challenge in the methods outlined above [is that] they offer to [helper and doer] alike a valuable opportunity to learn." [1966, 168]

#### **Step 4: Helping doer to implement, test, and refine the doer's solution**

Having worked with the doer to arrive at what the doer considers the best solution, the helper needs to assist the doer in testing it, refining it, and gaining the skill and self-confidence for full implementation of the refined solution. This at the same time builds trust on the part of the helper that the doer will take responsibility for the problem-solving.

#### **Step 5: Helping doer gain autonomy and take responsibility for solution**

In this final stage, the helper's goal is to assist the doer to achieve independence ("leave the nest") and to take full responsibility for the solution and its implementation—as well as for finding own-solutions to similar problems that might arise in the future. There are two sides to this "separation" or "leaving the nest" problem: getting the doer to avoid dependency and assume responsibility, and getting the helper to have the trust to "let go" and to avoid trying to take responsibility.<sup>16</sup>

---

<sup>14</sup> When the helper facilitates the doer finding a solution and refrains from "teaching" or otherwise imposing a solution, then the helper is perhaps engaging in "action by non-action" (*wu-wei*) of Taoist thought (see below).

<sup>15</sup> In the same spirit, George Bernard Shaw quipped "if you teach a man anything he will never learn it" [1961, 11] and Ortega y Gasset suggested: "He who wants to teach a truth should place us in the position to discover it ourselves." [1961, 67]

<sup>16</sup> One common metaphor is the two-sided problem of the grown teenager leaving the parents' "nest." The teenager needs self-confidence to release the parental hand and the parents need trust (and the willingness to forsake dependency and control) to let go of the grown teenager's hand.

The helper must avoid the benevolent "giving" of a solution to a grateful doer as that develops dependency and the doer does not learn to help himself. Just as the doer needs to take responsibility, the helper needs to avoid trying to "take responsibility." This is particularly difficult since helpers have their own bosses or principals so the helper naturally wants to take ownership of the solution.

If [the helper's] own need for power is too strong, he will not be able to create or maintain an effective relationship with *B* [the doer]. If he is overanxious for recognition, he is likely to destroy the results of his work with *B* by seeking credit for *B*'s accomplishments. [1966, 167]

This is the classic ownership problem. If the helper takes ownership of the solution in the eyes of the organization, then we are back in the case where the doers are called upon to implement someone else's plan with the aforementioned lack of effectiveness. The helper is never more successful than when the doer finds the *doer's* solution.<sup>17</sup>

## **Indirect Approaches: Intellectual Background in Antiquity**

Indirect approaches in the agent-principal relationship or the helper-doer relationship will be explored by looking at the history of these diverse but interrelated ideas.

### **Taoist Antecedents**

Direct approaches usually express a controlling and engineering mentality (stereotypically masculine) often associated with the West, while indirect approaches motivated by organic nurturing and enabling attitudes (feminine) are associated with the East. Eastern religions, particularly Taoism, have some clear early arguments against a direct controlling approach to human affairs.

For those who would like to take control of the world and act on it—  
I see that with this they simply will not succeed.  
The world is a sacred vessel;  
It is not something that can be acted upon.  
Those who act on it destroy it;  
Those who hold on to it lose it. [Lao-Tze 1989, Chapter 29]

In contrast, Taoism has the central concept of *wu-wei* which is variously translated by "action by inaction" or "effortless action." Perhaps *wu-wei* can be best understood as a general metaphor for the *indirect* approach. Certainly the "inaction" implies refraining from direct controlling actions that, as noted above, may defeat their purpose. A proper indirect approach by the helper will enable and enlist the intrinsic motivation and best energies of the doers so that matters will

---

<sup>17</sup> "The successful psychotherapist is the one whose patients all believe they cured themselves—they internalized the therapy and it thereby became truly an integral part of them. Consultants suffer much the same dilemma of the psychotherapist—the problem of internalization. If they wish the client to use the right solution with full and lasting commitment then they must let him believe it is *his* solution." [Handy 1993, 145] This echoes the notion of the Taoist ruler who governs in such a way that when the task is accomplished, the people will say "We have done it ourselves." [see Chapter 17 of Lao-Tzu's *Te-Tao Ching*]

progress effortlessly on their initiative. A clear example is in learning. Learning externally imposed lessons requires quite an effort, but "when I study a subject which I love,—no matter how many years it takes me to learn it—I never feel that I am making any effort...." [Smullyan 1977, 161] When the teacher refrains from "teaching" a topic (in the sense of "pumping" knowledge into the pupil) and instead awakens the learner's interest in the topic so that learning becomes self-motivated, then that is the *wu-wei* of the indirect approach on the part of the teacher-helper.

Applied to government, an interfering and overbearing government will stifle and crowd out the initiative and self-activity of the people.

The more prohibitions there are, the poorer the people become.  
The more sharp weapons there, the greater the chaos in the state.  
The more skills of technique, the more cunning things are produced.  
The greater the number of statutes, the greater the number of thieves and brigands.

Therefore the Sage says:  
I do nothing and the people are reformed of themselves.  
I love quietude and the people are righteous of themselves.  
I deal in no business and the people grow rich by themselves.  
I have no desires and the people are simple and honest by themselves. [Lin 1948, Chapter 57 of the *Te-Tao Ching*]

Thus the best *wu-wei* of the government is that which best enables the people to help themselves (which is not necessarily *laissez faire*).

### **The Socratic Method**

In the West, we may start the history of the indirect approach with Socrates (469-399 BC). Socrates did not teach, but those who engaged him in dialogue were engaged in learning. He had no writings, and the systemic doctrines expressed in the Platonic dialogues seem to be more attributable to Plato. Socrates was the quintessential helper whose aim was to help others, the doers, to learn to think for themselves. Most people think rather passively reflecting external opinions and values. Socrates exemplified critical reason that could take up the common opinions and values and critically examine them. But he did so in an indirect way by asking questions which would spur the learners to re-examine their own thoughts.

As in McGregor's initial steps, the helper should not "preach the Truth" but should start where the doer is, see the situation through the doer's eyes, and activate the doer's own energies in addressing the problem.

If education is understood in the Socratic way, as an eliciting of the soul's own activity, it is natural to conclude, as Socrates concludes, that education must be very personal. It must be concerned with the actual situation of the pupil, with the current state of the pupil's knowledge and beliefs, with the obstacles between the



pupil and the attainment of self-scrutiny and intellectual freedom. [Nussbaum 1997, 32]

It is important to understand that Socrates' direct goal was not the transmission of truth; otherwise the Sophists' lectures or sermons might have been the chosen pedagogical device rather than dialogue. Socrates' goal was not to instill a specific set of doctrines in his pupils (a temptation Plato could not resist) but to enable them to employ their critical reason so that after critically reexamining themselves during the dialogue and thereafter, the pupils would have "ownership" of the results. By living the examined life of reason, the learners would come to know themselves and to be autonomous.

As Socrates' goal was not to transmit specific doctrines, he (unlike the Sophists) always professed what is now known as "Socratic ignorance." Since he did not 'know',<sup>18</sup> he would have to constantly ask questions to better elucidate the topic.<sup>19</sup> The purpose of the questions was not for Socrates to find answers for himself but to get the pupils to think for themselves. Thus Socratic questioning is an indirect method, a method designed not to better control and instruct the student, but a method designed to self-activate the learner during the dialogue and perhaps thereafter. Socrates aimed not to be the "Father of Truth" but the midwife of critical reason. The Socratic teacher is described not only as a coach, a catalyst, or a midwife but as a "brooder" both in the sense of one who meditates about questions but as a hen brooding over her eggs and chicks. Scott Buchanan, the Socratic architect of the renowned learning program at St. John's College (Annapolis, MD), describes the Socratic teacher as:

knowing more than the pupil does, yet in some sense not conveying it but seeing that it is made available to the pupil. The great use of superior knowledge is to understand what the pupil is learning as it is learned. It takes great wisdom to be able to follow a learning pupil sensitively enough to know what the next step is for him, and you don't press the next step. You watch it happen. If it sticks, you help it a bit, but it's not a transmission or an imposition or a filling of a vessel of any of those things. Those are all bad images of the real teaching function: the real one is this penetration of the intelligence, of one intelligence into another. [Buchanan 1970, 51]

This view of the Socratic role of the teacher also follows from the constructivist pedagogy of Jean Piaget's genetic epistemology [e.g., Piaget 1955, 1970].

To summarize what Piaget said about active methods, he pointed out that the criterion of what makes an "active" method active is not the external actions of

---

<sup>18</sup> This too was ancient Eastern wisdom. "When you know a thing, to recognize that you know it, and when you do not know a thing, to recognize that you do not know it. That is knowledge." [Confucius, *Analects*, Book II, 17] "To know you don't know is best. Not to know you don't know is a flaw." [Lao-Tzu, *Te-Tao Ching*, Chapter 71]

<sup>19</sup> Clearly Socrates used considerable knowledge to ask the appropriate questions, so one might quip that it takes a lot of knowledge to be as 'ignorant' as Socrates. However, in the questions of human affairs, there is little reason then or now for this 'ignorance' or intellectual humility to be just ironic. A common perversion is the pseudo-Socratic method employed by someone who has already decided upon the answer and is only trying to ask leading questions to bring the listeners to the same conclusion. As always, the difference is between the helper controlling ('helping') the doers or enabling the doers to better help themselves.

the learner. He said, for example, that Socrates used an active method with language and that the characteristic of the Socratic method was to engage the learner in actively constructing his own knowledge. The task of the teacher is to figure out what the learner already knows and how he reasons in order to ask the right question at the right time so that the learner can build his own knowledge. [Kamii 1973, 203]

### **The Path of Stoicism**

Many paths diverged from Socrates and Plato: Aristotle and his school, the Skeptics, the Epicureans, and the Stoics. For the purposes of understanding indirect approaches, the golden thread runs through the Greek and Roman Stoicism of Chrysippus, Cleanthes, Zeno, Seneca, Epictetus, and Marcus Aurelius (although the thread of neo-Platonism will be picked up later).

In this example of the helper-doer relationship, Socrates is replaced by the Stoic teacher who functions as a physician for the soul of his interlocutors, the doers who seek to follow this path. Again the teacher must start with the particular situation of the doer and see the situation through the doer's eyes in order to be more helpful.

Just as it is appropriate for the [physician] of the body to be "inside" as they say, the affections...that befall the body and the therapeutic treatment that is proper to each, so it is the task of the physician of the soul to be "inside" both of these, in the best possible way. [Chrysippus, quoted in Nussbaum 1994, 328-9]

In order to better engage the self-activity of the student, the teacher focuses on practical problems, not abstract philosophical themes.<sup>20</sup> The use of concrete examples and stories serve the same end.

Yet a problem did arise in the transition from Socrates to the Stoics, a problem that has and perhaps will always tend to undermine the strengths of the indirect approach. Epigrams, sayings, and writings accumulated from the sages of the past. Instead of developing their own critical facilities or the autonomy of their wills, students could now memorize the "lessons" of Socrates and the previous Stoic philosophers and then regurgitate them with flourish and skill to become 'sages' themselves. For this *modus operandi*, no indirect pedagogy was needed; the direct approach of indoctrination in the "lessons" and "great books" of the past would suffice. Thus one finds Epictetus (55-135 AD) going to great lengths verbally lambasting his students for these pretensions. Seneca (1-65 AD) likewise chides his correspondent Lucilius on the desire to accumulate sayings.

It is disgraceful that a man who is old or in sight of old age should have a wisdom deriving solely from his notebooks. 'Zeno said this.' And what have you said?

---

<sup>20</sup> The theme that practicality was the road to engaging the interest and initiative of the students played a major role more recently in John Dewey's pragmatic philosophy of education. Interpreters of Dewey's pedagogy often think that his purpose was to urge "practical training" rather than to simply use practical problems as the source of student engagement so that the student's faculties of critical reason and social sympathy would be improved through active use.

'Cleanthes said that.' What have you said? How much longer are you going to serve under others' orders? ...

To remember is to safeguard something entrusted to your memory, whereas to know, by contrast, is actually to make each item your own, and not to be dependent on some original and be constantly looking to see what the master said. [Seneca 1969, Letter 33]

In the same spirit, Martha Nussbaum today chides those who would erect "The Great Books" as authorities to be learned, revered, and deferred to, and suggests a "more Senecan title, such as 'Some useful and nourishing books that are likely to help you think for yourself'" [1997, 35].

The goal of the indirect method is the self-transformation of the learner, not to make the learner into "an instrument for what others have to say" [Seneca, Letter 33]. But the written word (or remembered spoken word) always provides the temptation to revert to the easier direct method of teaching so that the pupils might at least display some of the outward behavior that might accompany self-transformation.<sup>21</sup>

### Learning in Neo-Platonism

There is a stream of thought supporting indirect methods that comes from Plato more than Socrates. Plato argued that, as is seen most clearly in mathematics, concepts do not come from experience but arise within the mind itself. The Platonic Ideas or Forms are innate in the mind and arise in consciousness through a process of recollection or reminiscence perhaps prompted by our sense experience. The theme of innate mental structures and mechanisms triggered—but not controlled—by experience has percolated down through Western thought (e.g., Plotinus, Augustine, the Cambridge Platonists, Descartes, Leibniz, Kant, and Humboldt) to find its most sophisticated modern expression in the constructivist pedagogy of genetic epistemology [e.g., Piaget 1955, 1971] and the school of generative linguistics [e.g., Chomsky 1966].

For our purposes, it is sufficient to see how the theory of the mind as an active generative organ supports the indirect approach, while the opposing theory of the mind as a passive *tabula rasa* or wax block supports the direct approach. Plato has some passive images of the mind as a wax block (*Theaetetus* 191-5) or a mirror or reflector (*Timaeus* 71). But Socrates (*Symposium* 175d) noted that wisdom was not the sort of thing that could flow as through pipes "from the one that was full to the one that was empty." In a direct statement about education, Plato uses the cave allegory where the soul turns away from the shadows to see the Forms.

If this is true, then, we must conclude that education is not what it is said to be by some, who profess to put knowledge into a soul which does not possess it, as if they could put sight into blind eyes. On the contrary, our own account signifies that the soul of every man does possess the power of learning the truth and the organ to see it with; and that, just as one might have to turn the whole body round in order that the eye should see light instead of darkness, so the entire soul must

---

<sup>21</sup> This tendency to subvert indirect in favor of direct methods is greatly aggravated by two more modern developments: teachers becoming employees of educational establishments who are held "responsible" for their students' progress [see McClintock 1982] and "evaluation" techniques geared to outward performance.

be turned away from this changing world, until its eye can bear to contemplate reality and that supreme splendour which we have called the Good. [*Republic* 518]

In Plotinus the Platonic process of recollection becomes an explicitly active process represented by metaphors such as an overflowing fountain or a radiating light.

In discussing the human perception of the divine overflow, Plotinus explicitly rejected the concept of sensations as 'imprints' or 'seal-impressions' made on a passive mind, and substituted the view of the mind as an act and a power which 'gives a radiance out of its own store' to the objects of sense. [Abrams 1953, 59]

The opposing metaphors of the mind as a passive mirror or as an active lamp correlate with two opposite pedagogies. One pedagogy sees the student as being essentially passive: a wax tablet on which knowledge is stamped, a mirror or reflector for knowledge (Plato, Locke), a vessel or cistern into which knowledge is poured (Cudworth,<sup>22</sup> Coleridge, Dewey), a phonographic record onto which knowledge is recorded (Dewey, Gramsci, Ryle), and so forth. The teacher supplies the knowledge that is imprinted into the student, crammed into the student as into a bag (Maritain), forced into the student through a "funnel" (Buber), drilled into the student as into hard and resisting rock (Dewey), or forced into the student using a "grease gun" (McGregor).

The other pedagogy sees the student's mind as taking a more active role represented by metaphors such as lamp, fountain, or projector—or often by organic metaphors of a growing plant. The teacher then has a more subtle indirect role of a guide, coach, or midwife to foster and nurture the student's active search for and appropriation of knowledge. Some of the subtlety of the teacher's indirect role can be expressed using the metaphor of the internal fountain. External pressure can obscure or block the flow of the fountain (like turning off a faucet or hose). External help can then unblock the fountain or open the faucet but the subtle point is that external help cannot directly supply the pressure to make the fountain flow. That pressure has to come from within.<sup>23</sup>

### **The Learning Paradox and Augustine**

The insights of a philosophical tradition are sometimes expressed in a deliberately provocative slogan, epigram, or paradox. One of the striking epigrams of neo-Platonism is the thesis that "no man ever does or can teach another anything." [Burnyeat 1987, 1] This epigram is a variation on Meno's Paradox or the Learning Paradox. In the *Meno* dialogue, Socrates attempts to indirectly

---

<sup>22</sup> For instance, the Cambridge Platonist Ralph Cudworth writing in the late 1600's noted that "knowledge was not to be poured into the soul like liquor, but rather to be invited and gently drawn forth from it; nor the mind so much to be filled therewith from without, like a vessel, as to be kindled and awakened." [1996, 78] Cudworth also saw clearly the active nature of learning: "knowledge is an inward and active energy of the mind itself, and the displaying of its own innate vigour from within, whereby it doth conquer, master, and command its objects..." [73]

<sup>23</sup> This can't-push-on-a-string asymmetry was reflected in our previous discussion of extrinsic and intrinsic motivation. Extrinsic motivation can override and crowd out intrinsic motivation to control behavior, but removing the former will not automatically supply the latter. One cannot extrinsically bring about intrinsically-motivated action just as opening a faucet cannot itself supply water pressure. The oft-repeated ("war-horse") metaphor for this insight is: "[W]hile we may lead a horse to water we cannot make him drink" [Dewey 1916, 26].

'teach' a slave boy some truths of geometry. Socrates claims that people cannot be directly taught such truths, they must recollect them.

*Meno*: I see, Socrates. But what do you mean when you say that we don't learn anything, but that what we call learning is recollection? Can you teach me that it is so?

*Socrates*: I have just said that you're a rascal, and now you ask me if I can teach you, when I say there is no such thing as teaching, only recollection. Evidently you want to catch me contradicting myself straight-away. [*Meno* 81e-82a]

One interpretation of Meno's Paradox is that *a priori* truths such as the truths of geometry must be recollected since no amount of empirical investigation can verify the truths of mathematics. But that is a paltry interpretation; Augustine (who 'Christianized' neo-Platonism) and others gave a stronger interpretation to the claim that "no man ever does or can teach another anything."

In *De Magistro* (The Teacher), Augustine developed an argument (in the form of a dialogue with his son Adeodatus) that as teachers teach, it is only the student's internal appropriation of what is taught that gives understanding and knowledge.

Then those who are called pupils consider within themselves whether what has been explained has been said truly; looking of course to that interior truth, according to the measure of which each is able. Thus they learn,.... But men are mistaken, so that they call those teachers who are not, merely because for the most part there is no delay between the time of speaking and the time of cognition. And since after the speaker has reminded them, the pupils quickly learn within, they think that they have been taught outwardly by him who prompts them. [*De Magistro*, Chapter XIV]

The basic point is the active role of the mind in *generating* understanding. This is clear even at the simple level of understanding spoken words. We hear the 'auditory sense data' of words in a completely strange language as well as the words in our native language. But the strange words 'bounce off' our minds with no resultant understanding while the words in a familiar language prompt an internal process of generating a meaning so that we understand the words.

There are many variations on this theme of the active mind in understanding. John Dewey made a point about ideas that is similar to the Learning Paradox, a point that supported Dewey's active learning pedagogy.

It is that no thought, no idea, can possibly be conveyed as an idea from one person to another. When it is told, it is, to the one to whom it is told, another given fact, not an idea. The communication may stimulate the other person to realize the question for himself and to think out a like idea, or it may smother his intellectual interest and suppress his dawning effort at thought. [Dewey 1916, 159]

The common element in the various interpretations of the general learning paradox, "no man ever does or can teach another anything," is that the external transmission from the speaker-

teacher to the listener-learner does not itself account for the active role of the mind in generating an understanding of what was received. The external transmission prompts and guides the internal process; the internal processing appropriates what is received and makes it our own.

The "Augustinian point" is that what is often taken as a "direct process" (e.g., transmitting or disseminating knowledge) is actually a more indirect process. Today, "knowledge processes" in organizations are constantly designed using "transmission" images of direct methods when in fact a more subtle understanding and implementation of indirect methods would yield a better chance of success.

## **Modern Variations on the Indirect Approach**

### **Rousseau's Copernican Revolution in Pedagogy**

Ortega y Gasset (1883-1955) asks what has been the "great historic advance in pedagogy" and he answers that it was the turning inspired by "Rousseau, Pestalozzi, Froebel, and German idealism." Before pedagogy had focused on the teacher and on the subject matter, but with Rousseau the themes known today as self-direction, autonomy, active learning, and learner-centered education came to the forefront. "The innovation of Rousseau and his successors was simply to shift the center of gravity of the science from knowledge and the teacher to the learner, recognizing that it is the learner and his characteristics which alone can guide us in our effort to make something organic of education." [Ortega 1966, 46]

The helper's assistance is often incompatible with the autonomy of the doers because the help is undertaken in the spirit and conception of social engineering. The success of the natural sciences from Galileo and Newton through the Enlightenment to understand and control Nature inspired attempts in the developing psychological, social, political, and economic sciences to similarly "engineer" social outcomes. Although ancient civilizations had their "social engineers," the new aspect was "that the engineering paradigm now becomes a highly conscious, central paradigm. There is the growing conviction that the only *real* problems of men are precisely those amenable to an engineering approach." [Schwartz 1978, 194] The "Romantic" reaction to this technocratic strand of Enlightenment thought can be traced to Rousseau.

Here again we see the two theories of the mind represented by the two metaphors of the mirror and the lamp [Abrams 1953]. Locke saw the mind as beginning with a *tabula rasa* receiving and mirroring elementary sensations that were with experience and education associated into more complex mental structures. This "mirror" approach lent itself easily to social engineering as seen for example in the later development of behaviorism. Descartes, following the Platonic tradition, saw the mind as a lamp endowed with innate structures that unfold and mature under the impact of experience and through the stimulus of action. Rousseau developed a version of the "lamp" theory although he was more given to organic metaphors of natural growth assisted by appropriate care.

Learning is an active growth, not the accretion of layers as in the "growth" of a pearl. Pedagogy based explicitly or implicitly on the engineering approach sees the teacher as actively depositing new layers of knowledge rather than seeing the learner as taking the active role growing new

layers of understanding. A teacher might take pride at explaining everything thoroughly for the student, but that crowds out an active role for the student.

Talent at instruction consists in making the disciple enjoy the instruction. But in order for him to enjoy it, his mind must not remain so passive at everything you tell him that he has absolutely nothing to do in order to understand you. The master's *amour-propre* must always leave some hold for the disciple's; he must be able to say to himself, "I conceive, I discern, I act, I learn." [Rousseau 1979, 248]

This problem is repeated manyfold when administrations in schools want their staff (teachers or task managers) to "show results" which in turn leads to those helpers taking an instrumental or engineering approach in their assistance to the ultimate doers [see McClintock 1982]. The end result is that the doers' *amour-propre*, pride, and ownership is crowded out and overridden so they cannot say "I conceive, I discern, I act, I learn."

Ortega also mentions Pestalozzi (1746-1827) and Froebel (1782-1852) as continuing to emphasize a learner-centered pedagogy in Rousseau's tradition. Indeed, Pestalozzi's work "contains ideas not yet realized in our time, namely, that education of both young and adults is ineffective unless it grows out of the initiative of the people themselves, unless it speaks their language, and unless it influences not only isolated individuals but the life of the whole community." [Ulich 1954, 480]

In addition to being known as the founder of Kindergarten, Froebel has been hailed as "the prophet of the active nature of the learning process." [cited in Lawrence 1970, 244] Froebel made the self-activity of the learner the central theme of his pedagogy: "To stir up, to animate, to awaken, and to strengthen, the pleasure and power of the human being to labour uninterruptedly at his own education, has become and always remained the fundamental principle and aim of my educational work." [Froebel 1954, 525] With Froebel, we also see the emphasis on intrinsic motivation for autonomous learning activities. "Froebel's self-activity is necessarily coupled with joy on the part of the child. To him joy is the inward reaction of self-activity." [translator's note cited in: Ulich 1954, 557] The role of intrinsic motivation in active learning foreshadows the modern literature on the limitations of external motivators in education [e.g., Kohn 1993] and in work [e.g., McGregor and Deming, not to mention Ruskin]—a theme that helps account for the general ineffectiveness of direct methods in fostering mental transformation.

### **John Dewey and the Active Learning Pedagogy**

John Dewey's (1859-1952) theory of education was based on the autonomy-compatible actions of the teacher and the activist role of the learner. As noted above in the context of the learning paradox in Augustinian neo-Platonism, Dewey notes that no idea "can possibly be conveyed as an idea from one person to another" and he evokes the horse-to-water metaphor. The reliance on extrinsic rewards or punishments, not to mention physical control, may yield conforming behavior but has little educative effect. Indeed, the threat to autonomy may lead to an adverse reactance effect. "His instincts of cunning and slyness may be aroused, so that things henceforth appeal to him on the side of evasion and trickery more than would otherwise be the case." [Dewey 1916, 26] An autonomy-compatible educational program needs to engage the person's more natural and intrinsic motivation.

When we confuse a physical with an educative result, we always lose the chance of enlisting the person's own participating disposition in getting the result desired, and thereby of developing within him an intrinsic and persisting direction in the right way. [27]

The students' active interest and involvement is a necessary component so one must consider the roots of engagement. Students do not construct knowledge in a void. Learning is contextual; it builds upon the context of previous knowledge, experience, and problems. Hence Dewey's "pragmatic" emphasis was placed on learning in the context of the "social environment," albeit simplified and ordered in a school, so that the student would have a natural or intrinsic incentive to learn. Hence Paulo Freire's emphasis on dialogue as the prelude to, as well as the means of, learning [1970]. By formulating a literacy campaign in terms of the peasants' daily concerns, the peasants are motivated to be involved and take ownership of the process. The cases, examples, and questions can be couched in terms that make sense from the student's viewpoint and are relevant to the student's interests. With this preparation, the student can take responsibility for actively reconstructing and appropriating knowledge with occasional prodding and questioning from the teacher as midwife. Knowledge obtained in this active way is truly the student's own; it is neither an imposition nor a gift. In general, one may try to "give" help to others or to impose "help," but in neither case are the others helping themselves. The latter requires indirect methods.

The most common error in an educational effort is for the one with superior knowledge (the teacher) to try to impose or imprint knowledge on the one with less knowledge of the relevant sort (assisted by manipulated rewards and punishments). These pedagogical errors are aided and abetted by the Lockean epistemology which sees the mind as a passive waxed tablet upon which knowledge may be imprinted. Another common error is to think that the alternative role for the teacher is passivity (leaving the children to "free play"). Between these poles lies the autonomy-compatible modes of interaction that is Dewey's "direction by indirection." [Westbrook 1991, 107]

When the parent or teacher has provided the conditions which stimulate thinking and has taken a sympathetic attitude toward the activities of the learner by entering into a common or conjoint experience, all has been done which a second party can do to instigate learning. The rest lies with the one directly concerned. ... This does not mean that the teacher is to stand off and look on; the alternative to furnishing ready-made subject matter and listening to the accuracy with which it is reproduced is not quiescence, but participation, sharing, in an activity. In such shared activity, the teacher is a learner, and the learner is, without knowing it, a teacher—and upon the whole, the less consciousness there is, on either side, of either giving or receiving instruction, the better. [Dewey 1916, 160]

Martin Buber also tries to capture the subtlety of "direction by indirection" in his description of the relationship between educator and pupil.



For if the educator of our day has to act consciously he must nevertheless do it "as though he did not." That raising of the finger, the questioning glance, are his genuine doing. Through him the selection of the effective world reaches the pupil. He fails the recipient when he presents this selection to him with a gesture of interference. It must be concentrated in him; and doing out of concentration has the appearance of rest. Interference divides the soul in his care into an obedient part and a rebellious part. But a hidden influence proceeding from his integrity has an integrating force. [Buber 1965, 90]

Such an indirect autonomy-respecting interaction<sup>24</sup> is even more subtle when all parties concerned are adults with their own past education and formative life experiences.

### **Carl Rogers' Non-Directive Therapy**

The next example of an indirect approach comes from Carl Rogers' notion of client-centered therapy [Rogers 1951]—which was also called "nondirective" theory echoing Dewey's notion of direction by indirection. The temptation for the therapist, as for the teacher and manager, is to "take charge" and to try to "produce" the right results. And as in the other cases, this overbearing approach cuts across the other person's internal resources for self-directed activities. On the other hand, a complete *laissez-faire* or hands-off approach would lead to no interaction rather than an autonomy-compatible interaction (a charge sometimes leveled against non-directive therapy). One key for the therapist, as for the educator, is to see the world through the client's eyes.

This formulation would state that it is the counselor's function to assume, in so far as he is able, the internal frame of reference of the client, to perceive the world as the client sees it, to perceive the client himself as he is seen by himself, to lay aside all perceptions from the external frame of reference while doing so, and to communicate something of this empathic understanding to the client. [29]

The client-centered therapist must guard against this "empathy" being used as a gimmick to control the patient "while pretending to let him guide himself" [30] just as the Theory Y manager needs to avoid seeing "participation" as a tool to get worker "buy-in" to management decisions. The basis in all cases is the respect for the autonomy of the client (student or worker):

the sincere aim of getting "within" the attitudes of the client, of entering the client's internal frame of reference, is the most complete implementation which has thus far been formulated, for the central hypothesis of respect for and reliance upon the capacity of the person. [36]

---

<sup>24</sup> Ortega makes a similar point. "It is a magisterial forest; old, as teachers should be, serene and complex. In addition it practices the pedagogy of suggestion, the only delicate and profound pedagogy. He who wishes to teach us a truth should not tell it to us, but simply suggest it with a brief gesture, a gesture which starts an ideal trajectory in the air along which we glide until we find ourselves at the feet of the new truth." [1961, 67]

The therapist's role is to be a "catalyzer of change, rather than a director, controller, or external motivator. ...In terms of causality..., the goal of therapy is to be a strengthening of one's autonomy orientation, that is, one's capacity to be self-determining." [Deci and Ryan 1985, 291]

Rogers applies the client-centered approach to education where it becomes "Student-Centered Teaching" [chapter 9 of Rogers 1951], which acknowledges the debt to Dewey and develops the same themes and even some of the same metaphors ("You can lead a horse to water..."). Rogers also pointed out the connection to management theory.

The grounds for the theory of administration which McGregor calls "Theory Y" have been exemplified in all of the preceding chapters of this book. The assumptions on which this theory is based, the kinds of evidence from the behavioral sciences which support it, the view of human nature which permeates it, constitute the backbone of what I have set forth. [Rogers 1969, 207]

### **Søren Kierkegaard and Ludwig Wittgenstein on Indirect Communication**

Søren Kierkegaard (1813-1855) was the philosopher of the indirect approach *par excellence*. His approach to philosophical persuasion was steeped in indirect Socratic irony and his main message was that all direct objective approaches to spiritual insight must fall short; only subjective inwardness could appropriate the truth about questions of moral or spiritual value. For example, can he directly inform and persuade a conventional "Christian" that he is only under an illusion of being a Christian?

No, an illusion can never be destroyed directly, and only by indirect means can it be radically removed. If it is an illusion that all are Christians—and if there is anything to be done about it, it must be done indirectly, not by one who vociferously proclaims himself an extraordinary Christian, but by one who, better instructed, is ready to declare that he is not a Christian at all [as S.K. did ironically in: 1992, 466]. ...A direct attack only strengthens a person in his illusion, and at the same time embitters him. ...And this is what a direct attack achieves, and it implies moreover the presumption of requiring a man to make to another person, or in his presence, an admission which he can make most profitably to himself privately. This is what is achieved by the indirect method which, loving and serving the truth, arranges everything dialectically for the prospective captive, and then shyly withdraws (for love is always shy), so as not to witness the admission which he makes to himself alone before God—that he has lived hitherto in an illusion. [Kierkegaard in: Bretall 1946, 332]

Kierkegaard's main point was not just about the indirectness of persuading others but about the utter subjectivity of moral or spiritual insight even for oneself so that all direct objective or intellectual ("speculative") approaches were doomed to fail and could only produce a counterfeit approximation to insight. He poses the learning paradox about the extent to which truths, spiritual Truth in his case, can be learned from others. He reviews the old doctrine of recollection according to which "the Truth is not introduced into the individual from without, but was within him all the time." [in Bretall 1946, 155] Hence these matters need to be communicated indirectly or maieutically (as by a Socratic midwife).

The fact that several of Plato's dialogues end with no conclusion has a far deeper reason than I had earlier thought. For this is a reproduction of Socrates' maieutic skills, which activate the reader or listener himself, and therefore end not in any conclusion but with a sting. This is an excellent parody of the modern rote-learning method that says everything at once and the quicker the better, which does not awaken the reader to any self-activity, but only allows him to recite by heart. [SK's Journals VII I A 74; quoted in Storm 1999, 11]

Kierkegaard also gives a spiritual interpretation of "Socratic ignorance" as the recognition that this inward subjective truth cannot be obtained objectively or speculatively.

We noted previously that actions have motives and beliefs have grounds. Kierkegaard is making the point that intrinsically motivated actions and inwardly subjective beliefs cannot be extrinsically or objectively obtained just as love cannot be bought. "But to be a lover, a hero, etc. is reserved specifically for subjectivity, because objectively one does not become that. ... And ... piety is rooted precisely in subjectivity; one does not become pious objectively." [1992, 132] It is not the "what" of one's beliefs that counts—as that can be learned by rote—but the "how" of the beliefs, i.e., how the beliefs were subjectively appropriated. For instance, Kierkegaard satirizes an orthodox "Christian" gentleman who:

does everything in the name of Jesus and uses Christ's name on every occasion as a sure sign that he is a Christian and is called to defend Christendom in our day—and he has no intimation of the little ironic secret that a person, just by describing the "how" of his inwardness, can indirectly indicate that he is a Christian without mentioning Christ's name. ... If anyone says, "Yes, but then one can in turn learn the 'how' of faith by rote and recite it," the answer to that must be: That cannot be done, because the person who states it directly contradicts himself, ... . [O]ne human being cannot directly communicate this something else to another. ... All ironic observing is a matter of continually paying attention to the "how," whereas the honorable gentleman with whom the ironist has the honor of dealing pays attention only to the "what." [1992, 613-4 and footnote]

In this sketch, no attempt is being made to capture the richness and scope of Kierkegaard's philosophical psychology or the particulars of his treatment of Christianity. For our purposes, he was the quintessential philosopher of the inner life; indeed he was obsessed with the juxtapositions of the outer to the inner, the external to the internal, the objective to the subjective. In so doing, he saw clearly that the usual direct methods for dealing with the outer, external, and objective aspects of the world would not extend to the other side; indirect methods were needed to deal with the inner, the internal, and the subjective. Attempts to apply the direct methods to subjective transformation would only produce inauthentic counterfeits.

Kierkegaard is widely considered as one of the founders of existentialism, but it is quite relevant to our theme to see the influence on Ludwig Wittgenstein (1889-1951). By analyzing Wittgenstein's intellectual and social background in early 20<sup>th</sup> century Vienna, Stephen Toulmin has persuasively argued for a more Kierkegaardian interpretation (with significant influence also

from Schopenhauer and Tolstoy) than the conventional interpretations of the early Wittgenstein as a logical positivist or the later Wittgenstein as an ordinary language philosopher. This Kierkegaardian reading is important to understand the enigmatic ending of the *Tractatus* [1922]: "Whereof one cannot speak, thereof one must be silent." Wittgenstein, like Kierkegaard, strictly separated the objective world of facts from the subjective world of moral and aesthetic values.

In separating reason from fantasy, the mathematical representation of the physicist from the metaphor of the poet, straight-forward descriptive language from "indirect communication," Wittgenstein was convinced that he had solved "the problem of philosophy." [that is, in the *Tractatus*]...The implication of the model theory was that the "meaning of life" lay outside the sphere of what could be said;.... So the model theory corroborates Kierkegaard's notion that the meaning of life is not a topic which can be discussed by means of the categories of reason.

Subjective truth is communicable only indirectly, through fable, polemics, irony, and satire. This is the only way that one can come to "see the world aright." Ethics is taught not by arguments, but by providing examples of moral behavior; this is the task of art. It is fulfilled in Tolstoy's later *Tales*, which explain what religion is, by *showing* how the truly religious man lives his life. [Janik and Toulmin 1973, 198]

In a December 1929 conversation, Wittgenstein made the explicit connection to Kierkegaard.

Nevertheless, we run up against the limits of language. This running-up-against Kierkegaard also saw, and indicated in a completely similar way—as running up against the Paradox. This running up against the limits of language is *Ethics*. I regard it as of great importance, that one should put an end to all the twaddle about ethics—whether it is a science, whether values exist, whether the Good can be defined, etc. In ethics people are forever trying to find a way of saying something which, in the nature of things, is not and can never be expressed. We know a priori: anything which one might give by way of an definition of the Good—it can never be anything but a misunderstanding.... [reported in: Waismann 1967, 68-9; quoted in Janik and Toulmin 1973, 194-5]

In the turn from the early to the later Wittgenstein, his doubts about the efficacy of direct communication in ethical and aesthetic matters spread, albeit for different reasons, to descriptions of the world. Instead of mirroring or picturing facts, language acquired its meaning by its use in inherently social forms of life. When removed out of its embedding in such a language game, an expression might have many interpretations and might cause undue philosophical problems when it is assumed to have a meaning in a very different game. Wittgenstein would use indirect methods of stories and fables to dissolve philosophical problems resulting from lifting language from one form of life to another.

What Tolstoy's *Tales* had done for the unsayable in ethics, these fables of Wittgenstein's did for the unsayable in the philosophy of language. So, in philosophy as in ethics, Wittgenstein believed, teaching could bring a man only to

a point at which he recognized what you were getting at, for himself; and it was no good attempting to draw an explicit conclusion for him. [Janik and Toulmin 1973, 229]

This is expressed in the war-horse aphorism about the indirect way that "You can lead a horse to water but...".

Wittgenstein's theory of meaning as use embedded in a form of life also gives a version of the Augustinian learning paradox that "no man ever does or can teach another anything."

No-one can achieve my understanding for me, not for the trivial reason that it is mine, but because to internalize the requisite connections is to go beyond what is presented on any occasion of so-called teaching. Augustine does not have Wittgenstein's subtle arguments to bring out the multiplicity of ways in which I might seem (to myself and others) to understand and later turn out to have missed the point, which in turn demonstrates the multiplicity of connections in understanding itself. But we might read Wittgenstein as reviving the ancient understanding of the complexity of understanding. [Burnyeat 1987, 23]

Understanding comes from the listener's integration into the form of life where a linguistic expression is ordinarily used and where the "meaning is the use." This interpretation of Wittgenstein's use of indirect methods meshes well with our next topic—which takes us from Kierkegaard's unsayable "how" to Ryle's inarticulate "knowing-how."

### **Ryle, Polanyi, and Oakeshott on Uncodified Knowledge**

Knowledge that can be directly communicated has already been codified, but much knowledge has the uncodified form of know-how, practical, or tacit knowledge. Gilbert Ryle (1900-1976), Michael Polanyi (1891-1976), and Michael Oakeshott (1901-1990) have in different fields using various terminologies explored the special problems of uncodified knowledge, including alternatives to the naïve pedagogy of direct teaching as if all knowledge were the technical, explicit, codified, or knowing-that type of knowledge.

Polanyi [1962, 1966] juxtaposes personal, implicit, or tacit knowledge to codified knowledge, the latter being knowledge that can be said, written down, or transmitted over a wire. But "we know more than we can say" such as the knowledge implicit in using our native language, recognizing faces, or performing skilled physical operations such as riding a bicycle. Ryle [1945-6, 1949] earlier makes the distinction between knowing-that and knowing-how, while Oakeshott [1991] compares technical to practical knowledge.<sup>25</sup>

For Oakeshott, "Rationalism is the assertion that what I have called practical knowledge is not knowledge at all, the assertion that, properly speaking, there is no knowledge which is not

---

<sup>25</sup> There is now something of a minor industry in making such distinctions. See Schön 1983 for a related treatment of professional versus instrumental knowledge, Marglin 1990 on *techne* versus *episteme*, and Scott 1998 on *metis* versus *episteme/techne*. The importance of the tacit/codified distinction is explored in Nonaka and Takeuchi 1995, and they note that Squire 1987 gives a dozen labels for similar distinctions.

technical knowledge." [1991, 15] Technical knowledge is codified and can be learned at least in a rote sense from a book, a correspondence course, or a transmission over a wire. But practical knowledge requires a more indirect process.

On the other hand, practical knowledge can neither be taught nor learned, but only imparted and acquired. It exists only in practice, and the only way to acquire it is by apprenticeship to a master—not because the master can teach it (he cannot), but because it can be acquired only by continuous contact with one who is perpetually practising it.... Thus a pianist acquires artistry as well as technique, a chess-player style and insight into the game as well as knowledge of the moves, and a scientist acquires (among other things) the sort of judgement which tells him when his technique is leading him astray and the connoisseurship which enables him to distinguish the profitable from the unprofitable directions to explore. [1991, 15]

As all knowledge has a practical as well as a technical component, the Rationalist tradition, according to Oakeshott, tends to systematically ignore the practical component. In what is even a caricature of engineering, Rationalist politics and economics is assimilated to a kind of social engineering based on technical knowledge.

Thus, political life is resolved into a succession of crises, each to be surmounted by the application of 'reason.' Each generation, indeed, each administration, should see unrolled before it the blank sheet of infinite possibility. And if by change this *tabula rasa* has been defaced by the irrational scribbings of the tradition-ridden ancestors, then the first task of the Rationalist must be to scrub it clean; as Voltaire remarked, the only way to have good laws is to burn all existing laws and to start afresh. [1991, 9]

Indeed, Oakeshott remarks that it is characteristic of the Rationalist to think of getting rid of a law by burning it—as if the law were only the codified part written down.

Social engineering with carrots and sticks based on Rationalist precepts will try to directly implement change while ignoring the practical knowledge embedded in existing institutions and thus it will most likely fail.<sup>26</sup> To utilize that practical knowledge, change must evolve out of the existing configuration of customs and institutions. A more indirect non-engineering approach might foster that sort of change process. However, a diehard social engineer might work to make the practical and inarticulate knowledge explicit in order to have social engineering with a human face. Thus even if autonomy-compatibility is not taken as a constraint, there is a practical-knowledge argument against enlightened social engineering based on skepticism about the 'practicality' of turning the relevant practical knowledge into technique.

Michael Polanyi made the notion of tacit or personal knowledge into the centerpiece of his philosophical viewpoint. When one focuses on another face and recognizes it, the features of the face necessary for recognition were only attended to in a "*subsidiary awareness*" [1962, 55] and one would be hard put to articulate them. In one's *focal awareness* of the face, these features are

---

<sup>26</sup> See Scott 1998 for a less conservative critique of "high Modernist" social engineering also based on an appreciation of the embedded practical knowledge that he calls *metis*.

brought together in a *gestalt*-like way so that the face is seen as a familiar one. One has a commitment to that tacit knowledge and relies on it for the recognition. If one tries to articulate the separate features of the face that make it recognizable, then one loses the *gestalt*. Polanyi generalized these aspects of tacit knowledge being utilized in a unifying way in all human actions including rigorous scientific activity.

The bringing together or integrating of the underlying tacit knowledge is a creative mental action, and thus it is reminiscent of the active (Kantian) role of the mind in Augustine's Platonism and in modern generative linguistics. Indeed Polanyi describes the child's acquisition of language as the "early apprenticeship by which the child acquires the idiom of its native community" [1962, 322]. Hence on Polanyi's analysis, the problem with direct methods of teaching or transmitting knowledge is not simply that they neglect the tacit component but that they do not supply the active integration of the tacit knowledge into the focal act of knowing. Thus what is naively seen as direct transmission is really the more indirect prompting of internal *gestalt* processes of learning and knowing.

Gilbert Ryle [1945-6, 1949] made an early distinction between knowing that (propositional knowledge) and knowing how, the latter being his treatment of practical and personal knowledge. How does Ryle's treatment of the different types of knowing illuminate the direct and indirect approaches to acquiring knowledge? Is the problem with the direct approach simply that it tends to leave out tacit knowledge which might be picked up by indirect means? Or does it relate back to the more passive role of the student under the direct method of teaching in contrast to an indirect approach which casts the learner in a more active role? For Ryle, the important thing was not the explicit/implicit or codified/tacit distinction but the difference between learning propositions (e.g.,  $7 \times 8 = 56$ ) essentially by rote and learning how to *do* something (e.g., to multiply as well as to ride a bike). And when the student learns by doing, then that inextricably active component in the student's role implies a more indirect approach, whereas the direct approach is based on a "semi-surgical picture of teaching as the forcible insertion into the pupil's memory of strings of officially approved propositions" [1967, 108].

In a by-now familiar manner, Ryle poses the learning paradox.

[H]ow, in logic, can anyone be taught to do untaught things? ...How can one person teach another person to think things out for himself, since if he gives him, say, the new arithmetical thoughts, then they are not the pupil's own thoughts; or if they are his own thoughts, then he did not get them from his teacher? Having led the horse to the water, how can we make him drink? [1967, 105, 112]

Ryle's answer is along the lines of the motive inconsistency argument; there is no way to heteronomously impose autonomous action.

How can the teacher be the initiator of the pupil's initiatives? the answer is obvious. He cannot. I cannot compel the horse to drink thirstily. I cannot coerce Tommy into doing spontaneous things. Either he is not coerced, or they are not spontaneous. ... [1967, 112]

How in logic can the teacher drag his pupil into thinking for himself, impose initiative upon him, drive him into self-motion, conscript him into volunteering, enforce originality upon him, or make him operate spontaneously? The answer is that he cannot—and the reason why we half felt that we must do so was that we were unwittingly enslaved by the crude, semi-hydraulic idea that in essence to teach is to pump propositions, like 'Waterloo, 1815' into the pupils' ears, until they regurgitate them automatically. [1967, 118]

Ryle makes the case for the indirect approach crystal clear. The point is not the distinction between codified propositions and tacit practical knowledge; even to actually use and apply codified knowledge requires a knowing-how that needs to be acquired actively. Thus the problem with the direct approach to teaching is the inconsistency of trying to 'impose' active learning. The teacher can open the faucet, but cannot supply the pressure for the water to flow (to use a neo-Platonic variation on the horse-to-water metaphor). At best the teacher uses an indirect approach to bring the learner to the threshold; the self-activity of the learner must carry the process the rest of the way.

### **Gandhi and Satyagraha**

In the case of Gandhi's method of social action called *Satyagraha* (truth-force), the relationship between the first party A (helper) and the second party B (doer) is openly antagonistic. The first party is an aggrieved person or group who feels that their rights have been violated by the second party who would typically be an established political or economic authority. With these caveats in mind, the helper-doer terminology will still be used—particularly in view of Erik Erikson's analogy between the method of *Satyagraha* and the therapeutic relationship [1969, 413, 439].

In the relationship of mind to mind, the main problem of direct methods of influence is motive inconsistency. Means are employed to bring about a change of mind in the doer when the motives are inconsistent with the desired change. Often the motive inconsistency will be of little concern if it is a one-time affair. If one is being attacked, then one would like the attacker (doer) to desist and one may not be fastidious about how the attacker's mind is changed. Ideally one might want a potential attacker to refrain out of recognition and respect for one's rights, and one's defense might do little to bring about that recognition and motivation. This motivational inconsistency in one's defense would be of little practical consequence if the attack was a one-time matter. But if the situation is repeated as it would be in the case of group of people with a long-standing grievance against an economic or political power, then one might want to consider the motivational dynamics of one's method. Is there an alternative to the vicious cycle of tit for tat or eye for an eye (even the razor's edge of "exact" retaliation seems to lead inevitably to the downward spiral of unequal retaliation)?

The first criterion for an alternative strategy is that it be motivationally consistent with the desired actions on the part of the other party. That is the minimal basis for the passive "turning the other cheek," for not feeding the vicious cycle of attack and counterattack dynamics. The next step is to design an active response strategy that will not only be consistent with a desired motivation but will try to elicit a motive on the part of the doer that would lead to a mutually acceptable state of affairs. That goes beyond "turning the other cheek" to "Love your enemies and pray for those who persecute you" [Matthew 5:45].



Prior to reading Gandhi I had about concluded that the ethics of Jesus were only effective in individual relationships.. The 'turn the other cheek' philosophy and the 'love your enemies' philosophy were only valid, I felt, when individuals were in conflict with individuals; when racial groups and nations were in conflict a more realistic approach seemed necessary. But after reading Gandhi, I saw how utterly mistaken I was. Gandhi was probably the first person in history to lift the love ethic of Jesus above mere interaction between individuals to a powerful and effective social force on a large scale. [Martin Luther King, *Stride Toward Freedom* quoted on dust jacket of: Gandhi 1961]

These strategies at the individual or social level go beyond the reach of direct carrot and stick methods. As Dewey remarked, "while we can shut a man up in a penitentiary we cannot make him penitent." [1916, 26] The "stick" at best deters and does not reform, and that may be the best that can be expected against a Tamerlane or a Hitler. But in most social situations there are other possibilities that might be obtained by more indirect methods.

By using indirect methods, mind can affect mind in ways that would be motivationally impossible with direct carrot and stick methods. Indirect strategies are designed not just to get the doer to change his behavior (e.g., for prudential reasons) but to change his "heart and mind" and perhaps to set off a more positive dynamics to the benefit of both parties. Changes at that deeper motivational level cannot be forced, and any attempt to crudely force such changes will only lead to resentment, resistance, and intransigence from the doer. Thus indirect methods operate on the basis of respect for the integrity of the doer.

After exhausting conventional channels to resolve the conflict, the aggrieved party may decide to resort to *Satyagraha*. This party (the helper trying to help the doer change) believes it has been wronged on certain grounds by the doer; that is its "truth." The "truths" asserted by the helper must be heart-felt and not just tactics. To show that the claims are made for authentic reasons, the helper must be vulnerable to rational counterarguments or new facts that might come to light, and must under such circumstances change his mind.

A devotee of Truth may not do anything in deference to convention. He must always hold himself open to correction, and whenever he discovers himself to be wrong he must confess it at all costs and atone for it. [Gandhi 1957, 350]

In this manner, arguments on the helper's side about these beliefs are kept on authentic grounds, not on the level of strategy and tactics, and the doer can then be authentically invited to re-examine his beliefs in the light of reason and evidence, not just self-interest.

The conflict is social and is carried out in public. In line with the old strategy to "fight a war to achieve a peace" the actions of aggrieved party must be compatible with the doer changing his mind while maintaining self-respect and self-esteem. While pressure will be brought on the doer to provide motivational backups, the pressure should not take the form of injuries that would derail the motivation for authentic change. That is the basis for the Gandhian doctrine of non-injury or *ashima*.

Under the Babul Tree Gandhi announced the principle which somehow corresponds to our amended [Golden] Rule: "*That line of action is alone justice which does not harm either party to a dispute.*" By harm he meant—and his daily announcements leave no doubt of this—an inseparable combination of economic disadvantage, social indignity, loss of self-esteem, and latent vengeance. [Erikson 1964, 239]

In Joan Bondurant's authoritative treatment of *Satyagraha*, she noted: "If there is dogma in the Gandhian philosophy, it centers here: that the only test of truth is action based on the refusal to do harm." [1958, 25] Thus Truth and *ashima* were two fundamental prongs in *Satyagraha*.

*Ashima* and Truth are so intertwined that it is practically impossible to disentangle and separate them. They are like the two sides of a coin, or rather of a smooth unstamped metallic disk. ...Nevertheless *ashima* is the means; Truth is the end. [Gandhi 1961, 42]

A third component is the self-suffering or *tapasya* which works to elevate the motivation of the helper in the eyes of public opinion, if not in the eyes of the doer.

Self-suffering, the third element of *satyagraha*, guarantees the sincerity of the *satyagrahi*'s own opinions, the while it restrains him from propagating uncertain truths. The objective of *satyagraha* is to win the victory over the conflict situation—to discover further truths and to persuade the opponent, not to triumph over him. [Bondurant 1958, 33]

This last point—about winning the victory over the situation, not over the person—is particularly important as a means of maintaining respect for and the self-respect of the doer. When actions face constraints, it is very important whether or not the constraints are human-caused or "natural."

'The nature of things does not madden us, only ill will does', said Rousseau. The criterion of oppression is the part that I believe to be played by other human beings, directly or indirectly, with or without the intention of doing so, in frustrating my wishes. [Berlin 1969, 123]

Thus the doer will change his mind more easily if the conflict can be reframed as a depersonalized "situation" so that he is reacting to the situation rather than to specific pressure from the aggrieved party. In management theory, this is Mary Parker Follett's indirect method, the "law of the situation."

Our job is not how to get people to obey orders, but how to devise methods by which we can best *discover* the order integral to a particular situation. When that is found, the employee can issue it to the employer, as well as employer to employee. [Follett 1992 (1926), 70]

Thus unilateral command and pressure from another person is replaced by mutual recognition of the "law of the situation."

Direct carrot and stick methods on the part of the aggrieved party, the helper, are motivationally inconsistent with the motives that would bring about changes in the heart and mind of the doer. To keep the space open in the doer for those transformative motives to develop and come into the motivational foreground, the aggrieved party's actions should also be motivationally compatible. That means that those actions should be clearly based on shared principles, not tactical self-interest (a point dramatized by the self-suffering or *tapasya* of the aggrieved party), and that the arguments should appeal to shared reason and evidence. Then it is possible for the doer to yield to principles and reason with self-respect intact, not to be "defeated" by the other party.

However, in view of the human powers of self-righteous rationalization, particularly on the part of those who hold power, these appeals by themselves are not sufficient to bring about transformative changes in the doer. The point must be emphasized that just because external pressure should not be in the motivational foreground to force the change in the doer, that does not mean that external pressure should be absent. It is again a question of foreground and background. The basic idea of *ashima* is that the external pressures (e.g., economic boycotts) should be kept going in the background, but should be designed so that they do not "take over" or crowd out the appeals to the better motives of the doer. Otherwise, the pressure might come into the foreground and ignite the downward spiral of retaliatory dynamics.

Moreover, if the circumstances of the doer should change so that they would have to yield to the extrinsic pressure alone, then, just as Gandhi put the drive for Indian independence on hold while England was involved in WWII, the aggrieved party might reduce or temporarily suspend the pressure, to help insure that the eventual changes on the part of the doer were made for the right reasons.

In summary, Gandhi's *Satyagraha*—abstracted from the particulars of the Indian case—is the development of the indirect method into a full-fledged methodology of change in the context of social oppression, and, as such, it is a social innovation of the first order.

## Conclusion

My purpose has been to try to discern the theoretical basis for the indirect approach by looking for the common themes in the use of the indirect approach in a wide variety of human endeavors over a long period of intellectual history. A common theme has emerged, once one allows for the many different vocabularies and diverse settings. Actions have motives just as beliefs have grounds. In the wide spectrum of human endeavor, there is only a fairly small "bandwidth" where the motives can be supplied by the carrots and sticks of the direct approach (including agency theory and market-driven activities as special cases of the direct approach to affect behavior). Outside of that spectrum of pecuniary and prudential behavior, the attempt to use direct methods in a controlling manner contradicts the motives for actions (and the grounds for beliefs). It is trying to "buy" love—trying to "impose" autonomy. The externally supplied carrots and sticks have a role only in the motivational background.

For those "higher" human activities, the motives must come from within, as rational beliefs need to be based on the exercise of our own critical judgment. People then have an active role to make the actions their own—or to make the beliefs their own. It is a variation on the old principle that people have a natural ownership over the fruits of their own activity. The helpers cannot externally supply the doers' own-motives or own-reasons. The helpers can at best use the indirect approach to bring the doers to the threshold; the doers have to do the rest—and that makes the results their own.

## Bibliography

- Abrams, M.H. 1953. *The Mirror and The Lamp: Romantic Theory and the Critical Tradition*. London: Oxford University Press.
- Akerlof, George 1984. *An Economic Theorist's Book of Tales*. New York: Cambridge Univ. Press.
- Arrow, Kenneth 1972. Gifts and Exchanges. *Philosophy and Public Affairs*. 1: 343-62.
- Ashby, W. Ross 1960. *Design for a Brain*. Second ed. London: Chapman & Hall.
- Ashby, W. Ross 1963. *An Introduction to Cybernetics*. New York: John Wiley & Sons.
- Axelrod, Robert 1984. *The Evolution of Cooperation*. New York: Basic Books.
- Bateson, Gregory 1972. *Steps to an Ecology of Mind*. New York: Ballantine.
- Berlin, Isaiah 1969. *Four Essays on Liberty*. Oxford: Oxford University Press.
- Bondurant, Joan 1958. *Conquest of Violence: The Gandhian Philosophy of Conflict*. Princeton: Princeton University Press.
- Brehm, Jack 1972. *Responses to the Loss of Freedom: A Theory of Psychological Reactance*. Morristown NJ: General Learning Press.
- Bretall, Robert, Ed. 1946. *A Kierkegaard Anthology*. Princeton: Princeton University Press.
- Buber, Martin 1965. *Between Man and Man*. New York: Macmillan Publishing.
- Buchanan, Scott 1970. *Embers of the World*. Harris Wofford Ed., Santa Barbara: Center for the Study of Democratic Institutions.
- Burnyeat, Myles 1987. Wittgenstein and Augustine *De Magistro*. *Proceedings of the Aristotelian Society* Supp. Volume LXI: 1-24.
- Campbell, Donald 1995. *Incentives: Motivation and the Economics of Information*. New York: Cambridge University Press.
- Candy, Philip 1991. *Self-Direction for Lifelong Learning*. San Francisco: Jossey-Bass.
- CERFE and UNCHS (Habitat) 1995. *Review of Current Global Trends in Economic and Social Development*. Rome: Global Urban Observatory.  
[www.urbanobservatory.org/swc1999/cerfe/cerfemain.html](http://www.urbanobservatory.org/swc1999/cerfe/cerfemain.html)
- Chomsky, N. 1966. *Cartesian Linguistics*. New York: Harper & Row.

- Cudworth, Ralph 1996 (1731). *A Treatise Concerning Eternal and Immutable Morality*. S. Hutton Ed., Cambridge: Cambridge University Press.
- Deci, Edward and Richard Ryan 1985. *Intrinsic Motivation and Self-Determination in Human Behavior*. New York: Plenum Press.
- Deming, W. Edwards 1994. *The New Economics for Industry, Government, Education*. Cambridge: MIT Center for Advanced Engineering.
- Dewey, John 1916. *Democracy and Education*. New York: Free Press.
- Drucker, Peter 1954. *The Practice of Management*. New York: Harper & Row.
- Drucker, Peter 1973. *Management: Tasks, Responsibilities, Practices*. New York: Harper & Row.
- Eatwell, John, Murray Milgate, et al., Eds. 1989. *The New Palgrave: Allocation, Information, and Markets*. New York: W. W. Norton.
- Eisenhardt, Kathleen 1989. Agency Theory: An Assessment and Review. *Academy of Management Review*. 14(1): 57-74.
- Elster, Jon 1983. *Sour Grapes: Studies in the Subversion of Rationality*. Cambridge: Cambridge University Press.
- Elster, Jon 1984. *Ulysses and the Sirens*. Cambridge: Cambridge University Press.
- Erikson, Erik 1964. *Insight and Responsibility*. New York: Norton.
- Erikson, Erik 1969. *Gandhi's Truth: On the Origins of Militant Nonviolence*. New York: Norton.
- Farber, Leslie 1976. *Lying, Despair, Jealousy, Envy, Sex, Suicide, Drugs, and the Good Life*. New York: Basic Books.
- Follett, Mary Parker 1992 (1926). The Giving of Orders. *Classics of Public Administration*. J. Shafritz and A. Hyde Eds. Pacific Grove CA: Brooks/Cole: 66-74.
- Freire, Paulo, 1970. *Pedagogy of the Oppressed*. New York: Continuum.
- Frey, Bruno 1997. *Not just for the money: An economic theory of personal motivation*. Cheltenham: Elgar.
- Froebel, Friedrich W. 1954. Froebel. In *Three Thousand Years of Educational Wisdom*. Robert Ulich Ed. Cambridge: Harvard University Press: 523-76.
- Gandhi, Mohandas K. 1957. *An Autobiography: The Story of My Experiments with Truth*. Boston: Beacon Press.
- Gandhi, Mohandas K. 1961. *Non-Violent Resistance (Satyagraha)*. New York: Schocken.
- Handy, Charles 1993. *Understanding Organizations*. 4<sup>th</sup> ed. London: Penguin.
- Hart, B. H. L. 1967. *Strategy*. New York: New American Library.
- Hart, B. H. L. 1941. *The Strategy of Indirect Approach*. London: Farber and Farber.
- Hirsch, Fred 1976. *Social Limits to Growth*. Cambridge: Harvard.

- Hirsch, P., S. Michaels, and R. Friedman 1987. "Dirty hands" versus "clean models": Is sociology in danger of being seduced by economics? *Theory and Society*: 317-36.
- Hirschman, Albert O. 1992. *Rival Views of Market Society*. Cambridge: Harvard University Press.
- Janik, Allan and Stephen Toulmin 1973. *Wittgenstein's Vienna*. New York: Touchstone.
- Kamii, Constance 1973. Pedagogical Principles Derived from Piaget's Theory: Relevance for Educational Practice. *Piaget in the Classroom*. M. Schwebel and J. Raph (eds.). New York: Basic Books: 199-215.
- Kierkegaard, Søren 1992. *Concluding Unscientific Postscript to Philosophical Fragments*. Howard and Edna Hong Eds. Princeton: Princeton University Press.
- Kohn, Alfie 1993. *Punished by Rewards: The Trouble with Gold Stars, Incentive Plans, A's, Praise, and Other Bribes*. Boston: Houghton Mifflin.
- Kreps, David 1997. Intrinsic Motivation and Extrinsic Incentives. *American Economic Review*. 87: 359-65.
- Lane, Robert E. 1991. *The Market Experience*. New York: Cambridge University Press.
- Lao-Tzu 1989. *Te-Tao Ching*. Robert Henricks Tr. New York: Ballantine.
- Lawrence, Elizabeth 1970. *The Origins and Growth of Modern Education*. Baltimore: Pelican.
- Lefcourt, Herbert 1976. *Locus of Control*. Hillsdale NJ: Erlbaum/Wiley.
- Lutz, Mark 1999. *Economics for the Common Good*. London: Routledge.
- Marglin, Stephen 1990. Losing Touch: The Cultural Conditions of Worker Accommodation and Resistance. *Dominating Knowledge: Development, Culture, and Resistance*. F. Marglin and S. Marglin. Oxford: Clarendon: 217-82.
- McClintock, Robert 1982. Reaffirming a Great Tradition. *Invitation to Lifelong Learning*. R. Gross Ed. Chicago: Follett, 46-78.
- McGregor, Douglas 1948. The Staff Function in Human Relations. *Journal of Social Issues*. 4(3): 5-22. Reprinted in McGregor 1966, 145-71.
- McGregor, Douglas 1960. *The Human Side of Enterprise*. New York: McGraw-Hill.
- McGregor, Douglas 1966. *Leadership and Motivation: Essays of Douglas McGregor*. Cambridge: MIT Press.
- McGregor, Douglas 1967. *The Professional Manager*. Caroline McGregor and Warren Bennis Eds. New York: McGraw-Hill.
- Milton, John 1957 (1659). To Remove Hirelings Out of the Church. In *John Milton: Complete Poems and Major Prose*. Merritt Hughes Ed. New York: Odyssey Press: 856-79.
- Morley, John 1928. *On Compromise*. London: Macmillan and Co.
- Nonaka, Ikujiro and Hirotaka Takeuchi 1995. *The Knowledge-Creating Company*. New York: Oxford University Press.

- Nussbaum, Martha 1994. *The Therapy of Desire: Theory and Practice in Hellenistic Ethics*. Princeton: Princeton University Press.
- Nussbaum, Martha 1997. *Cultivating Humanity: A Classical Defense of Reform in Liberal Education*. Cambridge: Harvard University Press.
- Oakeshott, Michael 1991. *Rationalism in politics and other essays*. Indianapolis: Liberty Fund.
- Ortega y Gasset, Jose 1961. *Meditations on Quixote*. New York: Norton.
- Ortega y Gasset, Jose 1966. *Mission of the University*. New York: Norton.
- Parfit, Derek 1984. *Reasons and Persons*. Oxford: Clarendon.
- Perrow, Charles 1972. *Complex Organizations: A Critical Essay*. New York: McGraw-Hill.
- Pfeffer, Jeffrey 1994. *Competitive Advantage Through People*. Boston: Harvard Business School Press.
- Piaget, Jean 1955. *The Language and Thought of the Child*. New York: Meridian.
- Piaget, Jean 1970. *Science of education and the psychology of the child*. New York: Orion Press.
- Polanyi, Michael 1962. *Personal Knowledge: Towards a Post-Critical Philosophy*. Chicago: University of Chicago Press.
- Polanyi, Michael 1966. *The Tacit Dimension*. Garden City NY: Doubleday.
- Pratt, John W. and Richard J. Zeckhauser, Eds. 1991. *Principals and Agents: The Structure of Business*. Boston: Harvard Business School Press.
- Prendergast, Canice 1999. The Provision of Incentives in Firms. *Journal of Economic Literature*. XXXVII(March): 7-63.
- Rogers, Carl R. 1951. *Client-Centered Therapy*. Boston: Houghton Mifflin.
- Rogers, Carl R. 1961. *On Becoming a Person*. Boston: Houghton Mifflin.
- Rogers, Carl R. 1969. *Freedom to Learn*. Columbus OH: Charles Merrill.
- Ross, Stephen 1973. The economic theory of agency: The principal's problem. *American Economic Review*. 63 (May): 134-9.
- Rousseau, Jean-Jacques 1979 (1762). *Emile or On Education*. Bloom, Allan Tr. New York: Basic Books.
- Ruskin, John 1985 (1862). *Unto this Last*. London: Penguin.
- Ryle, Gilbert 1945-6. Knowing How and Knowing That. *Proceedings of the Aristotelian Society* XLVI: 1-16.
- Ryle, Gilbert 1949. *The Concept of Mind*. New York: Barnes & Noble.
- Ryle, Gilbert 1967. Teaching and Training. *The Concept of Education*. R. S. Peters. London: Routledge & Kegan Paul: 105-19.
- Schelling, Thomas C. 1984. *Choice and Consequences: Perspectives of an Errant Economist*. Cambridge: Harvard.
- Schön, Donald 1983. *The Reflective Practitioner*. New York: Basic Books.

- Schwartz, Benjamin I. 1978. The Rousseau Strain in the Contemporary World. *Daedalus*. 107(3 Summer): 193-206.
- Scitovsky, Tibor 1976. *The Joyless Economy: An Inquiry into Human Satisfaction and Consumer Dissatisfaction*. Oxford: Oxford University Press.
- Scott, James C. 1998. *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. New Haven: Yale.
- Sen, Amartya 1982. *Choice, Welfare and Measurement*. Oxford: Blackwell.
- Seneca 1969. *Letters from a Stoic*. Robin Campbell Tr. London: Penguin.
- Shaw, G. B. 1961. *Back to Methuselah*. Baltimore: Penguin.
- Smullyan, Raymond 1977. *The Tao is Silent*. San Francisco: Harper & Row.
- Stiglitz, Joseph 1974. Incentives and risk sharing in sharecropping. *Review of Economic Studies*. 41(April): 219-255.
- Squire, L.R. 1987. *Memory and Brain*. New York: Oxford University Press.
- Storm, D. Anthony 1999. *Kierkegaard's Pseudonymous Method of Authorship*.  
<http://209.63.222.24/dstorm/sk/author.htm>
- Titmuss, Richard 1970. *The Gift Relationship*. London: Allen and Unwin.
- Ulich, Robert (ed.) 1954. *Three Thousand Years of Educational Wisdom*. Cambridge: Harvard University Press.
- Waismann, Friedrich 1967. *Ludwig Wittgenstein und der Wiener Kreis*. Oxford: Basil Blackwell.
- Watzlawick, Paul 1976. *How Real is Real?* New York: Vintage.
- Wiener, Norbert 1954. *The human use of human beings*. Garden City: Doubleday Anchor.
- Wiener, Norbert 1961. *Cybernetics: or Control and Communication in the Animal and the Machine*. Second ed. Cambridge: MIT Press.
- Westbrook, Robert 1991. *John Dewey and American Democracy*. Ithaca: Cornell University Press.
- Wittgenstein, Ludwig 1922. *Tractatus Logico-Philosophicus*. C.K. Ogden Trs. New York: Harcourt Brace.



## Policy Research Working Paper Series

	<b>Title</b>	<b>Author</b>	<b>Date</b>	<b>Contact for paper</b>
WPS2403	Can the World Cut Poverty in Half? How Policy Reform and Effective Aid Can Meet International Development Goals	Paul Collier David Dollar	July 2000	E. Khine 37471
WPS2404	The Distribution of Mexico's Public Spending on Education	Gladys Lopez-Acevedo Angel Salinas	July 2000	M. Geller 85155
WPS2405	Marginal Willingness to Pay for Education and the Determinants of Enrollment in Mexico	Gladys Lopez-Acevedo Angel Salinas	July 2000	M. Geller 85155
WPS2406	How Mexico's Financial Crisis Affected Income Distribution	Gladys Lopez-Acevedo Angel Salinas	July 2000	M. Geller 85155
WPS2407	Utility Privatization and the Needs of the Poor in Latin America: Have We Learned Enough to Get It Right?	Antonio Estache Andrés Gomez-Lobo Danny Leipziger	August 2000	G. Chenet-Smith 36370
WPS2408	What Makes Banks Special? A Study of Banking, Finance, and Economic Development	Biagio Bossone	August 2000	E. Mekhova 85984
WPS2409	How Did the World's Poorest Fare in the 1990s?	Shaohua Chen Martin Ravallion	August 2000	P. Sader MC3-556
WPS2410	Is Functional Literacy a Prerequisite for Entering the Labor Market? An Analysis of Determinants of Adult Literacy and Earnings in Ghana	Niels-Hugo Blunch Dorte Verner	August 2000	H. Vargas 37871
WPS2411	Natural Openness and Good Government	Shang-Jin Wei	August 2000	H. Sladovich 37698
WPS2412	Urbanization without Growth: A Not-So-Uncommon Phenomenon	Marianne Fay Charlotte Opal	August 2000	A. Abuzeid 33348
WPS2413	Foreign Direct Investment in Services and the Domestic Market for Expertise	James Markusen Thomas F. Rutherford David Tarr	August 2000	L. Tabada 36896
WPS2414	Pension Reform and Capital Market Development: "Feasibility" and "Impact" Preconditions	Dimitri Vittas	August 2000	A. Yaptenco 31823
WPS2415	Infrastructure Restructuring and Regulation: Building a Base for Sustainable Growth	Ian Alexander Antonio Estache	August 2000	M. Salehi 37157

# Policy Research Working Paper Series

Title	Author	Date	Contact for paper
WPS2416 The Swiss Multi-Pillar Pension System: Triumph of Common Sense?	Monika Queisser Dimitri Vittas	August 2000	A. Yaptenco 31823

8/31